



National Weather Service

Storm Data and Unusual Weather Phenomena



July 2003

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
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ILLINOIS, Northwest

Jo Daviess County

Stockton **05** **0225CST** **0** **0** **50K** **20K** **Thunderstorm Wind (EG52)**
Trees & power lines down

Rock Island County

Port Byron **05** **0235CST** **0** **0** **50K** **10K** **Thunderstorm Wind (EG52)**
Numerous power lines down

Stephenson County

Countywide **05** **0235CST**
 0315CST **0** **0** **2.5M** **50K** **Thunderstorm Wind (EG61)**
Numerous trees & power lines down

Stephenson County

Pearl City **05** **0238CST**
 0300CST **0** **0** **2K** **Heavy Rain**
Streets flooded

Stephenson County

5 W Freeport **05** **0243CST** **0** **0** **150K** **15K** **Thunderstorm Wind (EG61)**
Mobile home overturned & limbs down

Carroll County

Shannon **05** **0249CST** **0** **0** **200K** **10K** **Thunderstorm Wind (EG52)**
Numerous limbs down; house under construction had roof torn off

Stephenson County

3 SE Pearl City **05** **0250CST** **0** **1** **20K** **10K** **Thunderstorm Wind (EG55)**
Limb down on a tent

Stephenson County

Freeport **05** **0253CST**
 0306CST **0** **0** **50K** **Thunderstorm Wind (EG52)**
8 inch limbs down

A MCS thunderstorm complex bowed out and raced across Eastern Iowa and Northwest Illinois in the pre dawn hours. Due to high freezing levels, hail was minimal. Along the Highway 20 corridor in Northeast Iowa and Northwest Illinois winds were estimated at 60 to 70 knots in places (70-80 mph). The cities of Dubuque, Iowa and Freeport, Illinois were particularly hard hit with many trees downed or uprooted. In Stephenson County Illinois, a well defined path of straight line winds was noted from 5 miles West of Freeport, across the northern part of the city, and east to the Stephenson/Winnebago county line. On the US 20 bypass around Freeport at Jct IL 75 five (5) 90 foot high voltage power poles were downed. One injury was reported on a campground southeast of Pearl City in Stephenson county where a tree limb fell on a tent. About 2 hours after the storms passed, a machine shed caught fire 4 to 5 miles north of Andrew, Iowa due to downed power lines.

Hancock County

Warsaw **05** **2115CST** **0** **0** **50K** **5K** **Thunderstorm Wind (EG52)**
Trees & power lines down

Hancock County

Hamilton **05** **2118CST** **0** **0** **50K** **5K** **Thunderstorm Wind (EG52)**
Power lines down

Severe thunderstorms developed along the outflow boundary/front left over from the early morning storms. The storms trained over the same area producing heavy rain and flash flooding.



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ILLINOIS, Northwest									
Stephenson County									
Freeport	07	0500CST 0535CST			0	0	2K		Heavy Rain
Street flooding									
Another early morning MCS moved across Eastern Iowa and Northern Illinois producing heavy rain and damaging winds. Rainfall rates of 1 to 2 inches an hour were common with the storms. Heavy rain along the North Fork of the Maquoketa River in Iowa pushed the river to bankfull. The Clinton Airport AWOS measured 48 knots (55 mph) as the storms moved through downing some trees and power lines in Clinton.									
Henry County									
Geneseo	07	1855CST 1858CST			0	0	10K	5K	Thunderstorm Wind (EG55)
10 inch diameter limb down with numerous small limbs									
Whiteside County									
7 NW Sterling	07	1913CST			0	0	20K	10K	Hail(1.00)
Tampico Rd.									
Henry County									
12 N Galva	07	1958CST			0	0	10K	15K	Hail(0.88)
Henry County									
4 N Galva	07	2014CST			0	0	10K	15K	Hail(0.88)
Thunderstorms developed in Eastern Iowa along outflow boundaries left over from the early morning MCS. The storms evolved into another MCS by early evening producing very heavy rain and some hail across Eastern Iowa and Northern Illinois. Training of storms produced rainfall rates of up to 2 inches an hour in some areas.									
Stephenson County									
Freeport	08	0615CST 0655CST			0	0	2K		Heavy Rain
Street flooding									
Stephenson County									
Pearl City	08	0755CST 0835CST			0	0	15K		Heavy Rain
Ditches full. Some erosion along edges of Pearl City to Elroy Rd.									
Rock Island County									
Rock Is	08	1030CST 1055CST			0	0	2K		Heavy Rain
in 25 minutes									
Henry County									
4 N Osco	08	1050CST 1120CST			0	0	2K		Heavy Rain
in 30 minutes									
Stephenson County									
Freeport	08	1110CST 1230CST			0	0	2K		Heavy Rain
Small streams & ditches overflowing									
Henry County									
Kewanee	08	1140CST 1200CST			0	0	2K		Heavy Rain
Street flooding & Mill Creek bankfull									
Whiteside County									
Sterling	08	1145CST			0	0	20K		Lightning
Large branch fell on house									



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ILLINOIS, Northwest

Bureau County

Princeton	08	1220CST			0	0	70K		Lightning
No power & 911 system out									

Henderson County

Gulfport to Gladstone	08	1240CST 1250CST			0	1	200K	20K	Thunderstorm Wind (EG55)
Trees down & semi overturned									

Warren County

2 SW Kirkwood to Kirkwood	08	1254CST 1300CST			0	0	50K	25K	Thunderstorm Wind (EG52)
Trees down on U.S. 34. Power out.									

Hancock County

Dallas City	08	1257CST 1310CST			0	0	50K	5K	Thunderstorm Wind (EG52)
Power out									

Hancock County

Warsaw	08	1314CST 1332CST			0	0	5K		Heavy Rain
Water on roads									

Another MCS developed along old outflow boundaries from convection earlier in the day. A high moisture atmosphere allowed storms to produce very heavy rain in short time periods. Across Southeast Iowa and West Central Illinois a small bow echo developed that produced concentrated areas of damage. In Henderson County numerous trees were downed across U.S. 34 along with a semi overturned that closed the highway for about an hour while in Burlington, numerous trees and power lines were downed. While moving through Burlington, the Burlington ASOS at the airport south of town measured a gust of 42 knots (48 mph).

Hancock County

5 N Hamilton	08	1920CST 2050CST			0	0	100K	20K	Flash Flood
Water over IL 96 between Hamilton & Nauvoo									

Storms that developed in the afternoon hours continued into the evening across far Northeast Missouri and a part of West Central Illinois and produced heavy rain. Due to already saturated soils, flash flooding occurred across parts of Northern Clark county and parts of Hancock county.

Henderson County

Raritan	09	1923CST 1926CST			0	0			Funnel Cloud
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Henderson County

Countywide	09	2025CST 2038CST			0	0	100K	10K	Thunderstorm Wind (EG55)
Trees & wires down southern half of county									

Mercer County

New Boston	09	2028CST 2032CST			0	0			Funnel Cloud
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Henderson County

Rozetta	09	2035CST 2037CST			0	0			Funnel Cloud
3 funnels									

Mercer County

3 N Seaton	09	2039CST 2042CST			0	0			Funnel Cloud
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ILLINOIS, Northwest

Hancock County

Augusta **09** **2043CST**
2047CST **0** **0** **40K** **5K** **Thunderstorm Wind (EG52)**
 Tree limbs down

Warren County

Roseville **09** **2049CST**
2055CST **0** **0** **20K** **5K** **Thunderstorm Wind (EG52)**
 Trees down

Mcdonough County

Macomb **09** **2050CST**
2100CST **0** **0** **100K** **Thunderstorm Wind (EG51)**
 Trees & wires down

Mcdonough County

1.5 S Macomb **09** **2050CST**
2100CST **0** **0** **30K** **5K** **Thunderstorm Wind (EG52)**
 Power lines down 1000 North Rd

Mcdonough County

Macomb **09** **2052CST**
2053CST **0** **0** **15K** **Hail(0.75)**

Mcdonough County

Macomb **09** **2055CST**
2110CST **0** **0** **2K** **Heavy Rain**
 Street flooding

Mcdonough County

Macomb **09** **2130CST**
2230CST **0** **0** **5K** **Heavy Rain**
 Second storm with more street flooding

Hancock County

Tioga **09** **2133CST**
2135CST **0** **0** **Funnel Cloud**

This was the 9th and final severe weather episode that concluded an active 6 day period across Eastern Iowa, Northern Illinois, and Northeast Missouri. Thunderstorms developed along old outflow boundaries and ahead of a cold front and formed another severe MCS that moved across the area in the late afternoon and evening hours, producing mainly wind damage. Training of storms produced very heavy rains and some areas experienced flash flooding due to soils that were near saturation from rain over the previous 6 days.

Whiteside County

1.4 E Rock Falls **11** **1740CST**
1743CST **0** **0** **20K** **5K** **Hail(1.00)**
 At Oppold Marina Park

A line of thunderstorms produced 1 inch hail at Oppold Marina Park on the shores of Sinnissippi Lake just west of the Whiteside/Ogle county line.

Hancock County

Dallas City **18** **0304CST** **0** **0** **20K** **2K** **Hail(0.75)**

Mcdonough County

Macomb **18** **0304CST** **0** **0** **20K** **Hail(0.75)**

Mcdonough County

Tennessee **18** **0334CST**
0339CST **0** **0** **30K** **5K** **Thunderstorm Wind (EG57)**
 Large trees down



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ILLINOIS, Northwest							
McDonough County							
Tennessee	18	0335CST			0 0	20K 2K	Hail(0.75)
McDonough County							
Colchester	18	0338CST 0343CST			0 0	40K 5K	Thunderstorm Wind (EG52)
							Trees down
McDonough County							
Tennessee	18	0530CST 0535CST			0 0	40K 5K	Thunderstorm Wind (EG52)
							Trees down
Hancock County							
Nauvoo	18	0600CST 0605CST			0 0	3.5M 40K	Thunderstorm Wind (EG70)
							Also by spotters. Trees flattened.
Hancock County							
5 N Hamilton	18	0605CST 0610CST			0 1	60K 20K	Thunderstorm Wind (EG70)
							Numerous trees down
Hancock County							
Carthage	18	0615CST 0620CST			0 0	60K 10K	Thunderstorm Wind (EG70)
							Numerous trees down
Hancock County							
Bentley	18	0620CST 0625CST			0 0	60K 20K	Thunderstorm Wind (EG70)
							Trees and power lines down
A bow echo raced across Southeast Iowa and West Central Illinois around and just after dawn. Numerous trees and power lines were downed as well as substantial crop damage. In Keokuk, Iowa, trees 3 to 4 feet in diameter were downed while in Nauvoo, Illinois, a 160,000 bushel grain bin along the river was crushed. In Camp Eastman north of Hamilton, 299 boy scouts and adults were camping. A tree limb fell on one tent and injured a boy scout. In the pre-dawn hours ahead of the bow echo, scattered severe storms developed in West Central Illinois producing hail and high winds.							
Rock Island County							
Moline	20 21	2230CST 0030CST			0 0	2K	Heavy Rain
							Street flooding
Carroll County							
.5 NE Marcus	20	2317CST 2359CST			0 0	5K	Heavy Rain
Carroll County							
4.8 NNW Savanna	20	2320CST 2327CST			0 0	5K	Thunderstorm Wind (EG52)
							Tree limbs down on Illinois 84
Rock Island County							
Countywide	20	2327CST 2350CST			0 0	200K 100K	Thunderstorm Wind (EG65)
							Also reported by emergency manager. Southwest part of lower Rock Island county from the Mississippi River to just west of Reynolds. Power lines down with corn flattened.



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<u>ILLINOIS, Northwest</u>									
Rock Island County									
6 WNW Illinois City	20	2327CST 2338CST			0	0	100K	20K	Thunderstorm Wind (MG59)
			Lock & Dam 16; unconfirmed gust of 90 knots (104 mph)						
Mercer County									
Countywide	20 21	2334CST 0010CST			0	0	10M	3M	Thunderstorm Wind (EG70)
			Also reported by spotters. Considerable damage in Viola, Hamlet, North Henderson, and Aledo with numerous trees and power lines down. Large areas of corn flattened.						
Whiteside County									
Coleta	20	2350CST 2359CST			0	0	100K	10K	Thunderstorm Wind (EG61)
			Radio tower at Fire Station downed						
Mercer County									
1.8 S Keithsburg	20	2351CST			0	0	20K		Lightning
			House on fire from lightning strike						
Henry County									
Annawan	21	0000CST 0005CST			0	0	10K	5K	Thunderstorm Wind (EG52)
			Trees down in a separate storm that was not part of the bow echo in Southern Henry County.						
Henry County									
Countywide	21	0000CST 0040CST			0	0	50M	25M	Thunderstorm Wind (EG80)
			Also reported by law enforcement, spotters, and emergency managers in the southern part of the county. Extensive damage in Woodhull, Alpha, Nekoma, and Galva. Law enforcement reported zero visibility at the height of the storm on I-74 with cars blown into the ditches.						
Henry County									
Galva	21	0017CST			0	0	100K		Hail(0.88)
			Supercell thunderstorms developed in the evening hours and formed an organized cluster around Waterloo, Iowa. As the storms moved southeast through Eastern Iowa they interacted with boundaries and produced 6 tornadoes with widespread wind damage in the Cedar Rapids metropolitan area. KCRG TV and KGAN TV in Cedar Rapids measured 63 knots (73 mph) and 53 knots (61 mph) respectively at their studios during the storm. At the height of the storm in Cedar Rapids, Alliant Energy reported that about half of its 70,000 customers in the Cedar Rapids area were without power. Sporadic wind damage then occurred from Cedar Rapids to the Mississippi River. Heavy rain accompanying the storms produced mainly nuisance street flooding in many cities but did result in 2 mudslides, one in Moline, Illinois and another across Illinois 84 just northwest of Mississippi Palisades State Park in Carroll County Illinois. The second mudslide resulted in a traffic accident with no injuries. In Muscatine County the storms evolved into a bow echo and then raced East Southeast and produced widespread wind damage with winds estimated at 80 knots or stronger (92 mph) that lasted 10 to 15 minutes across the Illinois Counties of Rock Island, Mercer, and Southern Henry. An unsubstantiated wind gust of 90 knots (104 mph) occurred at Lock and Dam 16 on the Mississippi River just east of Muscatine, Iowa. Mercer and Southern Henry counties in Illinois had extensive damage from the bow echo with Galva, Illinois, in southern Henry County being hardest hit. An estimated 10,000 to 15,000 people were without power in the affected 3 counties. High winds of at least 80 knots (92 mph) lasted for nearly 15 minutes in Galva, toppling a grain elevator onto the BNSF railroad mainline. The combination of the toppled grain elevator and a propane leak caused by the fallen elevator halted rail traffic for 11 hours, delaying 7 or 8 BNSF trains. Blackhawk College East Campus in Southeast Henry County cancelled classes for several days due to considerable damage with many trees and power lines down. In Henry County Illinois alone, an estimated 25,000 acres of corn was flattened.						



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ILLINOIS, Northwest

ILZ007

Carroll

**21 0045CST
0110CST**

0

0

30K

Landslide

Heavy rain of 1.5 to 2 inches in under an hour caused a mudslide across Illinois 84 in Carroll County. The location was one third of a mile north of the Highway 84 bridge, on the northwest side of Mississippi Palisades State Park (or 0.5 miles northeast of Marcus, Illinois). At 0115 CST a vehicle hit the mudslide causing an accident. Fortunately the occupants of the vehicle were not injured.

ILZ015

Rock Island

**21 0130CST
0215CST**

0

0

20K

Landslide

Heavy rain of just over 2 inches in two hours caused a mudslide in Moline, Illinois. The area affected was 6th and 7th streets between Railroad Avenue and 5th Avenue. The mudslide originated from the old Moline Public Hospital which was undergoing demolition. Due to the time of the day, the mudslide was discovered and the area barricaded off before the morning rush hour began.

Rock Island County

Carbon Cliff

**27 0925CST
1010CST**

0

0

2K

Heavy Rain

in 45 minutes

Rock Island County

5 WSW Andalusia

**27 0935CST
0940CST**

0

0

50K

5K

Thunderstorm Wind (EG52)

Trees & power lines down

Rock Island County

Moline

**27 0935CST
0955CST**

0

0

2K

Heavy Rain

in 20 minutes; street flooding

Rock Island County

2 E Port Byron

**27 0937CST
0942CST**

0

0

30K

2K

Thunderstorm Wind (EG52)

Trees down

Rock Island County

Rock Is

27 0940CST

0

0

20K

Hail(0.88)

Cracked windshield on squad car

Henry County

Colona

**27 0945CST
0950CST**

0

0

50K

5K

Thunderstorm Wind (EG52)

Trees down in town & on BNSF tracks

Whiteside County

Morrison

**27 1018CST
1019CST**

0

0

20K

5K

Hail(0.88)

Henry County

5 NE Galva

**27 1020CST
1022CST**

0

0

10K

5K

Hail(0.75)

Whiteside County

Prophetstown

**27 1025CST
1030CST**

0

0

25K

5K

Thunderstorm Wind (EG52)

Trees down



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<u>ILLINOIS, Northwest</u>									
Bureau County Countywide	27	1035CST 1200CST			0	0	40K	20K	Thunderstorm Wind (EG55)
Numerous reports of trees & power lines down									
Whiteside County Rock Falls	27	1040CST 1041CST			0	0	20K	5K	Hail(0.75)
Small tree limbs down in estimated 43 knot (50 mph) winds									
Whiteside County Como	27	1059CST 1124CST			0	0	2K		Heavy Rain
in 25 minutes; roadside ditches full									
Thunderstorms developed into a line across East Central Iowa and moved quickly east into Northern Illinois, producing mainly wind damage. Across Bureau County Illinois, most of the damage was mainly along and north of U.S. 6. Illinois 89 north and south of Spring Valley was closed with trees across the road									
Bureau County Dover	27	1715CST 1740CST			0	0			Funnel Cloud
Bureau County Princeton	27	1715CST 1740CST			0	0			Funnel Cloud
I-80 & IL 26									
Towering cumulus clouds developed along a semi-stationary boundary across Bureau County. The rapid development of the clouds produced several reports of funnels in the Dover and Princeton areas.									
Stephenson County 3 S Rock City	31	1745CST 1748CST			0	0	15K	5K	Hail(0.75)
Thunderstorms developed along a boundary moving through Iowa, Illinois, and Missouri producing several reports of severe hail. In Coggon, Iowa, a spotter reported hail that was disk shaped. The hail was 3 inches long and 1 inch thick.									
<u>IOWA, East Central and Southeast</u>									
Buchanan County Fairbank	04	0233CST			0	0	50K	10K	Thunderstorm Wind (EG61)
4 to 5 inch branches down									
Buchanan County Independence	04	0234CST			0	0	50K	5K	Thunderstorm Wind (EG52)
A decaying mesoscale convective system brought wind gusts of 60 to 70 mph across Buchanan county. Across the remainder of the highway 20 corridor in Northeast Iowa and Northwest Illinois wind gusts of 40 to 50 mph were common. This would be the first event of nearly a week of daily severe weather across mainly Iowa and Illinois.									
Jackson County 4 W Maquoketa	05	0000CST			0	0	10K	5K	Hail(0.75)



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IOWA, East Central and Southeast

Buchanan County

Fairbank	05	0025CST			0	0	50K	5K	Thunderstorm Wind (EG52)
Also reported by law enforcement									

Benton County

Mt Auburn	05	0030CST			0	0	50K	5K	Thunderstorm Wind (EG52)
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Benton County

Mt Auburn	05	0032CST			0	0	250K	5K	Thunderstorm Wind (EG65)
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Benton County

Vinton	05	0032CST			0	0	50K	10K	Thunderstorm Wind (EG52)
Large trees down									

Iowa County

Ladora	05	0038CST			0	0	50K	5K	Thunderstorm Wind (EG52)
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Benton County

Vinton Meml Arpt	05	0040CST			0	0	50K	5K	Thunderstorm Wind (MG55)
KVTI AWOS									

Benton County

Vinton	05	0044CST			0	0	250K	10K	Thunderstorm Wind (EG65)
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Buchanan County

Independence	05	0048CST			0	0	60K	5K	Thunderstorm Wind (EG52)
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Buchanan County

5.2 ENE Hazleton	05	0050CST			0	0	60K	5K	Thunderstorm Wind (EG60)
In Stanley, Iowa									

Linn County

Cedar Rapids	05	0050CST 0053CST			0	0	100K		Thunderstorm Wind (EG50)
5 inch limbs and power lines down									

Benton County

Atkins	05	0053CST			0	0	50K	2K	Thunderstorm Wind (EG50)
2 to 3 inch limbs down									

Johnson County

Oxford	05	0100CST			0	0	70K	10K	Thunderstorm Wind (EG61)
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Johnson County

Solon to North Liberty	05	0105CST 0107CST			0	0	50K	10K	Thunderstorm Wind (EG61)
Power lines down Solon to North Liberty									

Linn County

Springville to 5 ENE Springville	05	0115CST 0125CST			0	0	15K	10K	Hail(0.75)
Springville to county line									

Jones County

7 W Monticello	05	0120CST			0	0	10K	5K	Hail(0.75)
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Delaware County

Hopkinton	05	0123CST			0	0	100K	10K	Thunderstorm Wind (EG61)
Phone & power lines down									

Jones County

Monticello	05	0130CST			0	0	50K	5K	Thunderstorm Wind (EG52)
2 to 3 inch limbs down									

Jones County

2 S Wyoming	05	0140CST			0	0	250K	10K	Hail(1.75)
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IOWA, East Central and Southeast

Jones County Wyoming	05	0140CST			0	0	50K		Thunderstorm Wind (EG52)
Dubuque County 3 E Epworth	05	0142CST			0	0	50K	5K	Thunderstorm Wind (EG52)
Tree down blocking Old Highway Rd									
Jackson County 4 W Maquoketa	05	0150CST			0	0	10K	2K	Hail(0.75)
Dubuque County Dubuque	05	0154CST 0207CST			0	0	1M		Thunderstorm Wind (EG61)
Numerous trees down									
Jackson County Maquoketa	05	0155CST			0	0	10K		Hail(0.75)
Jackson County Andrew	05	0157CST			0	0	60K	5K	Thunderstorm Wind (EG52)
Limbs & power lines down									
Jackson County Green Is	05	0210CST			0	0	60K	5K	Thunderstorm Wind (EG52)
Limbs & power lines down									
Dubuque County Dubuque	05	0220CST 0250CST			0	0	2K		Heavy Rain
Street flooding									
Scott County Parkview	05	0223CST			0	0	60K	5K	Thunderstorm Wind (EG52)
6 inch limb down									
Clinton County Camanche	05	0233CST			0	0	50K	2K	Thunderstorm Wind (EG52)
Power lines down									

A MCS thunderstorm complex bowed out and raced across Eastern Iowa and Northwest Illinois in the pre dawn hours. Due to high freezing levels, hail was minimal. Along the Highway 20 corridor in Northeast Iowa and Northwest Illinois winds were estimated at 60 to 70 knots in places (70-80 mph). The cities of Dubuque, Iowa and Freeport, Illinois were particularly hard hit with many trees downed or uprooted. In Stephenson County Illinois, a well defined path of straight line winds was noted from 5 miles West of Freeport, across the northern part of the city, and east to the Stephenson/Winnebago county line. On the US 20 bypass around Freeport at Jct IL 75 five (5) 90 foot high voltage power poles were downed. One injury was reported on a campground southeast of Pearl City in Stephenson county were a tree limb fell on a tent. About 2 hours after the storms passed, a machine shed caught fire 4 to 5 miles north of Andrew, Iowa due to downed power lines.

Lee County 5 SE Houghton	05	1650CST			0	0	60K	5K	Hail(1.00)
Van Buren County 3.5 S Keosauqua	05	1900CST 1950CST			0	0	5K		Heavy Rain
Jct Hwys 1 & 2; water over road									
Lee County Donnellson	05	1930CST			0	0	50K	5K	Thunderstorm Wind (EG52)
Trees & power lines down									



National Weather Service

Storm Data and Unusual Weather Phenomena



July 2003

July 2003									
Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>IOWA, East Central and Southeast</u>									
Van Buren County 1.6 NNE Bonaparte	05	1931CST			0	0	30K	5K	Hail(1.00)
		Jct J40 & W40							
Lee County Donnellson	05	1940CST			0	0	100K	10K	Thunderstorm Wind (MG63)
		IDOT RWIS							
Van Buren County Milton	05	2010CST			0	0	40K	5K	Thunderstorm Wind (EG52)
Lee County Sandusky	05	2013CST			0	0	60K	5K	Thunderstorm Wind (EG56)
		3 to 4 foot diameter trees down							
Lee County 4 NW Keokuk	05	2015CST			0	0	15K	5K	Hail(0.88)
Lee County Ft Madison	05	2105CST			0	0	50K	5K	Thunderstorm Wind (EG52)
		Power lines down							
Lee County Keokuk	05	2115CST			0	0	60K	5K	Thunderstorm Wind (MG56)
		Lock & Dam 19							
Severe thunderstorms developed along the outflow boundary/front left over from the early morning storms. The storms trained over the same area producing heavy rain and flash flooding.									
Clinton County Camanche	06	0512CST			0	0	50K	5K	Thunderstorm Wind (EG55)
		18 inch limbs down & power out							
Outflow from thunderstorms in Central Iowa spawned an intense thunderstorm that moved across Clinton County									
Muscatine County 1.9 ENE Wilton	06	1237CST			0	0	60K	15K	Thunderstorm Wind (EG65)
Cedar County 1.8 W Durant	06	1239CST			0	0	30K	10K	Thunderstorm Wind (EG65)
Muscatine County 2.7 E Wilton	06	1239CST			0	0	350K	25K	Thunderstorm Wind (EG65)
		On Trail Avenue							
Scott County 7 WNW Walcott	06	1245CST			0	0	5K	1K	Thunderstorm Wind (EG56)
		Location is 1 mile north of Durant on 1st Avenue							
A strong thunderstorm travelled across Southern Cedar and Northern Muscatine counties during the early afternoon. A microburst about a mile in diameter occurred along the Cedar/Muscatine line between Wilton and Durant Iowa. Several trees were downed along highway 927 just east of Little Elkhorn Creek and at the Waukonsa Country Club. A vehicle travelling on highway 927 was reported to be pushed backwards and then sideways by the wind. South of the golf course on Trail Avenue in Northern Muscatine County, numerous trees were downed on two farms with an outbuilding leveled. Just north of Durant on 1st Avenue, a 10 foot limb was downed just east of the Scott/Cedar county line.									



National Weather Service

Storm Data and Unusual Weather Phenomena



July 2003

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
<u>IOWA, East Central and Southeast</u>									
Buchanan County									
2 E Independence to Winthrop	07	0315CST 0325CST			0	0	30K	5K	Thunderstorm Wind (EG52)
		Trees down							
Buchanan County									
Jesup	07	0341CST			0	0	50K	5K	Hail(1.00)
Benton County									
Mt Auburn	07	0343CST			0	0	50K	5K	Hail(1.00)
Buchanan County									
4.9 WNW Aurora	07	0403CST 0410CST			0	0	40K	5K	Thunderstorm Wind (EG52)
		10-20 inch diameter limbs down in Stanley							
Delaware County									
Countywide	07	0415CST 0450CST			0	0	5K		Heavy Rain
		Water over old highway 20							
Jones County									
Monticello	07	0455CST			0	0	50K	5K	Hail(1.00)
Jackson County									
Maquoketa	07	0520CST 0555CST			0	0	2K		Heavy Rain
		Occurred in 35 minutes with street flooding							
Jackson County									
Maquoketa	07	0522CST 0526CST			0	0	600K	5K	Thunderstorm Wind (EG56)
		Numerous trees down citywide							
Clinton County									
Elvira	07	0553CST			0	0	15K	2K	Hail(0.75)
Clinton County									
Clinton	07	0555CST 0600CST			0	0	40K	5K	Thunderstorm Wind (EG52)
		Tree down. KCWI AWOS reported 48 knots							
Clinton County									
Clinton	07	0557CST			0	0	50K		Hail(1.00)
Clinton County									
Camanche	07	0558CST			0	0	100K	10K	Hail(1.00)
		Another early morning MCS moved across Eastern Iowa and Northern Illinois producing heavy rain and damaging winds. Rainfall rates of 1 to 2 inches an hour were common with the storms. Heavy rain along the North Fork of the Maquoketa River in Iowa pushed the river to bankfull. The Clinton Airport AWOS measured 48 knots (55 mph) as the storms moved through downing some trees and power lines in Clinton.							
Scott County									
Eldridge	07	1721CST			0	0	10K		Hail(0.75)
Scott County									
4 E Eldridge	07	1740CST			0	0	50K	10K	Hail(2.00)
		Jct Utica Ridge & Le Claire Rds							
Scott County									
Eldridge	07	1800CST 1837CST			0	0	2K		Heavy Rain
Muscatine County									
Muscatine	07	1808CST			0	0	10K	2K	Hail(0.88)



National Weather Service

Storm Data and Unusual Weather Phenomena



July 2003

July 2003									
Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>IOWA, East Central and Southeast</u>									
Scott County									
Bettendorf	07	1814CST 1820CST			0	0	5K		Hail(0.75)
		6 minute duration							
Scott County									
Le Claire	07	1820CST 1918CST			0	0	2K		Heavy Rain
		At Iowa Welcome Center on I-80							
Scott County									
Pleasant Vly	07	1825CST 1935CST			0	0	5K		Heavy Rain
		Creeks bankfull							
Muscatine County									
Atalissa	07	1845CST			0	0	40K	5K	Thunderstorm Wind (EG52)
		Thunderstorms developed in Eastern Iowa along outflow boundaries left over from the early morning MCS. The storms evolved into another MCS by early evening producing very heavy rain and some hail across Eastern Iowa and Northern Illinois. Training of storms produced rainfall rates of up to 2 inches an hour in some areas.							
Scott County									
Davenport	08	1055CST 1110CST			0	0	2K		Heavy Rain
		Street flooding							
Keokuk County									
What Cheer	08	1120CST 1130CST			0	0	2K		Heavy Rain
		in 10 minutes							
Washington County									
6 S Washington	08	1144CST 1154CST			0	0	2K		Heavy Rain
		in 10 minutes							
Van Buren County									
3 N Farmington	08	1152CST 1200CST			0	0	80K	5K	Thunderstorm Wind (EG55)
		Old porch roof off & trailer overturned							
Des Moines County									
Burlington	08	1230CST 1240CST			0	0	70K		Thunderstorm Wind (EG52)
		Also by media							
Des Moines County									
Mediapolis	08	1238CST 1308CST			0	0	10K		Heavy Rain
		Considerable street flooding. Fell in 30 minutes							
Muscatine County									
Muscatine	08	1238CST			0	0	10K	2K	Hail(0.88)
Lee County									
5 W Keokuk	08	1239CST 1359CST			0	0	5K		Heavy Rain
		Gravel driveway partially washed away							
Lee County									
Ft Madison	08	1243CST 1303CST			0	0	2K		Heavy Rain
		Street flooding							



National Weather Service

Storm Data and Unusual Weather Phenomena



July 2003

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
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IOWA, East Central and Southeast

Buchanan County

5 NE Hazleton	08	1250CST 1320CST			0	0	2K		Heavy Rain
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Streams & ditches overflowing

Buchanan County 4.9 WNW Aurora

	08	1255CST 1325CST			0	0	2K		Heavy Rain
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Streams & ditches overflowing. Fell in 30 minutes

Another MCS developed along old outflow boundaries from convection earlier in the day. A high moisture atmosphere allowed storms to produce very heavy rain in short time periods. Across Southeast Iowa and West Central Illinois a small bow echo developed that produced concentrated areas of damage. In Henderson County numerous trees were downed across U.S. 34 along with a semi overturned that closed the highway for about an hour while in Burlington, numerous trees and power lines were downed. While moving through Burlington, the Burlington ASOS at the airport south of town measured a gust of 42 knots (48 mph).

Cedar County 2.5 SW Lowden

	09	0755CST			0	0	100K		Lightning
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An early morning thunderstorm with considerable lightning killed 7 dairy cows and damaged a farm house southwest of Lowden.

Van Buren County 1 SW Bonaparte

	09	1820CST			0	0	20K	5K	Hail(0.88)
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Washington County Washington

	09	1830CST 2000CST			0	0	5K		Heavy Rain
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in 90 minutes

Keokuk County Sigourney

	09	1837CST 1840CST			0	0	40K	5K	Thunderstorm Wind (EG52)
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Large tree limb down

Jefferson County 5 NW Fairfield

	09	1917CST 1921CST			0	0	60K	10K	Thunderstorm Wind (EG61)
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Washington County Washington

	09	1920CST 1928CST			0	0	50K	5K	Thunderstorm Wind (EG60)
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15 inch diameter tree down

Van Buren County Keosauqua

	09	1932CST 1952CST			0	0	2K		Heavy Rain
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in 20 minutes

Van Buren County 2.2 SW Farmington

	09	1940CST 2200CST			0	0	100K	10K	Flash Flood
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On Hwy 81 at the Iowa/Missouri state line

Cedar County Lowden

	09	1955CST 2025CST			0	0	2K		Heavy Rain
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in 30 minutes

Des Moines County 1 W Middletown

	09	2000CST 2005CST			0	0			Funnel Cloud
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Also by spotters at Jct U.S. 34 & 180th Ave



National Weather Service

Storm Data and Unusual Weather Phenomena



July 2003

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage	Crops	Character of Storm
					Killed	Injured	Property		

IOWA, East Central and Southeast

Henry County

Mt Union	09	2000CST 2010CST			0	0	60K	10K	Thunderstorm Wind (EG60)
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Large trees & power lines down

Scott County

Davenport	09	2000CST 2020CST			0	0	2K		Heavy Rain
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Street flooding

Henry County

Salem	09	2008CST 2020CST			0	0	30K	10K	Thunderstorm Wind (EG52)
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Corn bent and broken off stalks

Des Moines County

Burlington	09	2015CST 2030CST			0	0	50K		Thunderstorm Wind (EG55)
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Trees down

Lee County

Keokuk	09	2015CST 2017CST			0	0	500K	5K	Thunderstorm Wind (EG57)
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Also heavy rain

This was the 9th and final severe weather episode that concluded an active 6 day period across Eastern Iowa, Northern Illinois, and Northeast Missouri. Thunderstorms developed along old outflow boundaries and ahead of a cold front and formed another severe MCS that moved across the area in the late afternoon and evening hours, producing mainly wind damage. Training of storms produced very heavy rains and some areas experienced flash flooding due to soils that were near saturation from rain over the previous 6 days.

Keokuk County

What Cheer	18	0438CST			0	0	10K	5K	Hail(0.75)
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Trees also downed

Henry County

1 S Salem	18	0524CST 0527CST			0	0	5K	2K	Thunderstorm Wind (EG52)
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Lawn furniture thrown across yard

Lee County

West Pt	18	0544CST 0549CST			0	0	50K	10K	Thunderstorm Wind (EG70)
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Widespread trees down, no power

Lee County

10 SW Ft Madison	18	0555CST 0600CST			0	0	50K	5K	Thunderstorm Wind (EG52)
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Trees down Ft Madison to Keokuk

Lee County

Ft Madison	18	0555CST 0600CST			0	0	500K		Thunderstorm Wind (EG70)
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Trees down or snapped off

Lee County

2 N Montrose	18	0555CST 0600CST			0	0	250K	10K	Thunderstorm Wind (EG65)
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Roof partially off business

Lee County

Montrose	18	0556CST 0601CST			0	0	60K	5K	Thunderstorm Wind (EG61)
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Numerous trees down



National Weather Service

Storm Data and Unusual Weather Phenomena



July 2003

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
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IOWA, East Central and Southeast

Lee County

Keokuk	18	0600CST 0605CST			0	0	250K	40K	Thunderstorm Wind (EG70)
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Numerous large trees down

A bow echo raced across Southeast Iowa and West Central Illinois around and just after dawn. Numerous trees and power lines were downed as well as substantial crop damage. In Keokuk, Iowa, trees 3 to 4 feet in diameter were downed while in Nauvoo, Illinois, a 160,000 bushel grain bin along the river was crushed. In Camp Eastman north of Hamilton, 299 boy scouts and adults were camping. A tree limb fell on one tent and injured a boy scout. In the pre-dawn hours ahead of the bow echo, scattered severe storms developed in West Central Illinois producing hail and high winds

Benton County

9 NNW Vinton to 4 NE Vinton	20	2117CST 2128CST	6.8	150	0	0	200K	15K	Tornado (F1)
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Traveled through mainly rural areas

Tornado touched down just north of the Cedar River 9 miles North Northwest of Vinton. Tornado moved southeast, crossing the Cedar River and then crossed the Cedar River again 6 miles North of Vinton. The tornado continued moving southeast...crossing county route V71 and Iowa highway 150 before lifting in a corn field 4 miles Northeast of Vinton. Few structures were in the path of the tornado...which appeared to reach its maximum intensity in the corn field at the end of its track.

Linn County

Palo	20	2140CST 2150CST			0	0	250K	30K	Thunderstorm Wind (EG61)
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Linn County

Center Pt	20	2145CST 2148CST			0	0	250K	30K	Thunderstorm Wind (EG61)
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Linn County

Cedar Rapids	20	2158CST 2217CST			0	0	5M		Thunderstorm Wind (MG63)
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Linn County

Cedar Rapids	20	2200CST 2240CST			0	0	5K		Heavy Rain
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Interstate 380 and other streets partially flooded in spots

Linn County

Cedar Rapids	20	2208CST 2211CST			0	0			Funnel Cloud
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Jct of Iowa 13 & 100 by KGAN TV

Linn County

Cedar Rapids	20	2213CST 2218CST			0	0			Funnel Cloud
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Over KCRG downtown studio

Cedar County

2 NNE Lowden	20	2233CST 2243CST			0	0	100K	30K	Thunderstorm Wind (EG61)
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Corn flattened with trees down and an out building damaged

Johnson County

Iowa City	20	2240CST 2310CST			0	0	2K		Heavy Rain
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Dubuque street at I-80 with street flooding



National Weather Service

Storm Data and Unusual Weather Phenomena



July 2003

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
<u>IOWA, East Central and Southeast</u>									
Johnson County 3 N Coralville	20	2245CST 2253CST			0	0	2K	5K	Thunderstorm Wind (EG52)
		Heavy rain for 8 minutes							
Johnson County Iowa City	20	2252CST 2304CST			0	0	30K		Thunderstorm Wind (EG52)
		KIOW measured 49 knots @ 2301 CST							
Muscatine County Atalissa	20	2300CST 2310CST			0	0	25K	5K	Thunderstorm Wind (EG56)
		Trees and power lines down							
Scott County Davenport	20	2300CST 2359CST			0	0	2K		Heavy Rain
		Street flooding downtown							
Muscatine County 2 E Atalissa	20	2307CST 2315CST			0	0	15K	5K	Thunderstorm Wind (EG61)
		6 power poles down							
Muscatine County Muscatine	20	2310CST 2332CST			0	0	2K		Heavy Rain
		In 22 minutes							
Muscatine County 3 S Atalissa	20	2315CST 2325CST			0	0	50K	10K	Thunderstorm Wind (EG56)
		Tree down on a 35 foot camper							
Muscatine County Muscatine	20	2316CST 2326CST			0	0	50K	10K	Hail(1.00)
		Lasted 10 minutes							
Muscatine County Muscatine	20 21	2320CST 0100CST			0	0	10K		Flash Flood
		Water bumper deep at Cedar and Mulberry Streets							
Muscatine County 5 NNE Muscatine	20	2320CST 2330CST			0	0	20K	10K	Thunderstorm Wind (EG61)
		Tree down on a trailer							
Muscatine County Muscatine	20	2324CST 2334CST			0	0	20K		Thunderstorm Wind (EG52)
		Trees down on U.S. 61							
Muscatine County Muscatine Muni Arpt	20	2324CST 2334CST			0	0	20K	5K	Thunderstorm Wind (MG50)
		KMUT AWOS							

Supercell thunderstorms developed in the evening hours and formed an organized cluster around Waterloo, Iowa. As the storms moved southeast through Eastern Iowa they interacted with boundaries and produced 6 tornadoes with widespread wind damage in the Cedar Rapids metropolitan area. KCRG TV and KGAN TV in Cedar Rapids measured 63 knots (73 mph) and 53 knots (61 mph) respectively at their studios during the storm. At the height of the storm in Cedar Rapids, Alliant Energy reported that about half of its 70,000 customers in the Cedar Rapids area were without power. Sporadic wind damage then occurred from Cedar Rapids



National Weather Service

Storm Data and Unusual Weather Phenomena



July 2003

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

IOWA, East Central and Southeast

to the Mississippi River. Heavy rain accompanying the storms produced mainly nuisance street flooding in many cities but did result in 2 mudslides, one in Moline, Illinois and another across Illinois 84 just northwest of Mississippi Palisades State Park in Carroll County Illinois. The second mudslide resulted in a traffic accident with no injuries. In Muscatine County the storms evolved into a bow echo and then raced East Southeast and produced widespread wind damage with winds estimated at 80 knots or stronger (92 mph) that lasted 10 to 15 minutes across the Illinois Counties of Rock Island, Mercer, and Southern Henry. An unsubstantiated wind gust of 90 knots (104 mph) occurred at Lock and Dam 16 on the Mississippi River just east of Muscatine, Iowa. Mercer and Southern Henry counties in Illinois had extensive damage from the bow echo with Galva, Illinois, in southern Henry County being hardest hit. An estimated 10,000 to 15,000 people were without power in the affected 3 counties. High winds of at least 80 knots (92 mph) lasted for nearly 15 minutes in Galva, toppling a grain elevator onto the BNSF railroad mainline. The combination of the toppled grain elevator and a propane leak caused by the fallen elevator halted rail traffic for 11 hours, delaying 7 or 8 BNSF trains. Blackhawk College East Campus in Southeast Henry County cancelled classes for several days due to considerable damage with many trees and power lines down. In Henry County Illinois alone, an estimated 25,000 acres of corn was flattened.

Jones County

**1 S Martelle to
2.6 WSW Morley**

**20 2147CST
 2155CST 3.5 35 0 0 10K 10K Tornado (F0)**

Affected rural areas

Tornado developed 1 mile south of Martelle and moved East Southeast across mainly corn fields and dissipated 2.6 miles West Southwest of Morley. Damage path was noted from the air by NWS Survey team enroute to survey damage around the Clarence, Iowa area.

Linn County

**.5 N Covington to
.3 SE Covington**

**20 2158CST
 2200CST 1 300 0 0 500K 45K Tornado (F2)**

Tornado developed in a corn field about 0.5 miles north of Covington. The tornado moved South Southeast crossing North Glen and Michael Road in Covington and then lifted in another corn field just north of Ellis Road

Linn County

Cedar Rapids

**20 2206CST
 2207CST 0.3 200 0 0 2M Tornado (F2)**

Strong F2...winds estimated at 140 mph.

Tornado touched down near the intersection of Zelda Drive and E Avenue Northwest. The tornado moved southeast for 0.25 miles across Peace Avenue and then lifted on Floral Avenue. The tornado reached peak intensity on Peace Avenue where F2 winds unroofed 3 homes, and 26 other homes were heavily damaged. This was the first tornado inside the Cedar Rapids city limits since 1965.

Cedar County

**2.4 NW Clarence to
1.6 NNE Clarence**

**20 2224CST
 2229CST 2.4 440 0 0 1M 30K Tornado (F1)**

Strong F1...winds estimated around 110 mph.

Tornado developed 2.4 miles Northwest of Clarence near 120th Street. The tornado moved southeast for 2.4 miles and lifted 1.6 miles North Northeast of Clarence near Oxford Junction Road. Every farm along the path sustained significant damage to crops with 5 to 6 barns destroyed. A grain wagon was thrown a quarter of a mile and debris was scattered for more than one half mile

Linn County

**1 SW Mt Vernon to
1 S Mt Vernon**

**20 2252CST
 2300CST 0.5 70 0 0 10K 10K Tornado (F1)**

Tornado developed in stratiform rain on the back side of the storm system, video taped by a storm chaser, and noted by many eye witnesses. Tornado developed 1 mile southwest of Mt Vernon and traveled roughly east for one half mile before dissipating 1 mile south of Mt Vernon. Only damage reported were some power poles taken down along Iowa highway 1 southwest of Mt Vernon.



National Weather Service

Storm Data and Unusual Weather Phenomena



July 2003

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
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IOWA, East Central and Southeast

Scott County

Blue Grass	27	0923CST 0925CST			0	0	30K	5K	Hail(1.00)
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Clinton County

Dewitt	27	0940CST 0944CST			0	0	20K	2K	Thunderstorm Wind (EG50)
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Branches down

Thunderstorms developed into a line across East Central Iowa and moved quickly east into Northern Illinois, producing mainly wind damage. Across Bureau County Illinois, most of the damage was mainly along and north of U.S. 6. Illinois 89 north and south of Spring Valley was closed with trees across the road.

Linn County

Coggon	31	1733CST 1745CST			0	0	200K	10K	Hail(1.50)
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Numerous reports of nickel to 1.25 inch hail

Thunderstorms developed along a boundary moving through Iowa, Illinois, and Missouri producing several reports of severe hail. In Coggon, Iowa, a spotter reported hail that was disk shaped. The hail was 3 inches long and 1 inch thick.

MISSOURI, Northeast

Clark County

4.5 WNW Anson	05	1940CST 2200CST			0	0	5K		Heavy Rain
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Clark County

Athens	05	1955CST 2005CST			0	0	70K	15K	Thunderstorm Wind (EG61)
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Tree limbs down & trees topped

Clark County

4.5 WNW Anson	05	2030CST 2300CST			0	0	200K	20K	Flash Flood
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Culvert 50% washed out; Possum Hollow Lane & CR 10

Scotland County

4 N Granger	05	2032CST			0	0	50K	5K	Thunderstorm Wind (EG52)
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Clark County

1.5 W Ashton to Ashton	05	2043CST 2048CST			0	0	200K	5K	Thunderstorm Wind (EG57)
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Trees down with roofs off porches

Clark County

Wayland	05	2053CST			0	0	70K	5K	Thunderstorm Wind (EG55)
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12 to 14 inch limbs & power lines down; roof off shed

Severe thunderstorms developed along the outflow boundary/front left over from the early morning storms. The storms trained over the same area producing heavy rain, high winds, and flash flooding.

Clark County

4.5 WNW Anson	08	1307CST 1317CST			0	0	1K		Heavy Rain
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Fell in 10 minutes



National Weather Service

Storm Data and Unusual Weather Phenomena



July 2003

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
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MISSOURI, Northeast

Another MCS developed along old outflow boundaries from convection earlier in the day. A high moisture atmosphere allowed storms to produce very heavy rain in short time periods. Across Southeast Iowa and West Central Illinois a small bow echo developed that produced concentrated areas of damage. In Henderson County numerous trees were downed across U.S. 34 along with a semi overturned that closed the highway for about an hour while in Burlington, numerous trees and power lines were downed. While moving through Burlington, the Burlington ASOS at the airport south of town measured a gust of 42 knots (48 mph).

Clark County 4.5 WNW Anson	08	1730CST 1910CST			0	0	50K	5K	Flash Flood
Water over County Route V									
Clark County 1 N Anson	08	1840CST 1910CST			0	0	15K	5K	Flash Flood
Water over County Route V									
Clark County 1 N Revere	08	1845CST 1930CST			0	0	100K	15K	Flash Flood
County Route DD partially washed out									
Scotland County Memphis	08	2115CST			0	0	15K		Lightning
Tree struck & fell into power lines									
Storms that developed in the afternoon hours continued into the evening across far Northeast Missouri and a part of West Central Illinois and produced heavy rain. Due to already saturated soils, flash flooding occurred across parts of Northern Clark county and parts of Hancock county.									
Clark County 4.5 WNW Anson	09	1815CST 1945CST			0	0	2K		Heavy Rain
in 90 minutes									
Scotland County Bible Grove	09	1918CST 1922CST			0	0	40K	5K	Thunderstorm Wind (EG55)
Trees down									
Clark County 1.4 N Anson to 2.4 N Anson	09	1940CST 2200CST			0	0	30K	10K	Flash Flood
Jct Hwy 81 & County Route V; also on Hwy 81 at the Iowa/Missouri State line									
Clark County 5 N Kahoka	09	1940CST 2200CST			0	0	100K	15K	Flash Flood
Road partially washed out Jct hwy 81 and County route C									
Clark County Kahoka	09	1948CST 1952CST			0	0	20K	5K	Thunderstorm Wind (EG55)
Large tree down									
Clark County 2 W Wayland	09	2017CST 2022CST			0	0			Funnel Cloud
Seen in the Twin Bridges area									
This was the 9th and final severe weather episode that concluded an active 6 day period across Eastern Iowa, Northern Illinois, and Northeast Missouri. Thunderstorms developed along old outflow boundaries and ahead of a cold front and formed another severe MCS that moved across the area in the late afternoon and evening hours, producing mainly wind damage. Training of storms									



National Weather Service

Storm Data and Unusual Weather Phenomena



July 2003

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

MISSOURI, Northeast

produced very heavy rains and some areas experienced flash flooding due to soils that were near saturation from rain over the previous 6 days.

Clark County

4.2 W Anson

31	1545CST 1548CST			0	0	5K	2K	Hail(0.75)
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Clark County

4.5 WNW Anson

31	1548CST 1552CST			0	0	10K	5K	Hail(1.00)
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